

REMARKS

Claims 2, 4 and 5 are pending and are rejected. Claim 2 is herein amended.

Claim Objections

Claim 2 is objected to. Applicants herein change claim 2 at line 11, from “the only the” to “only the”. Applicants submit that this amendment overcomes the rejection.

Claim Rejections under 35 U.S.C. §102(e)

Claims 2 and 5 are rejected under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,943,545 to Ise.

The Examiner asserts that Ise teaches a method of producing a hydrogen absorbing alloy for an alkaline battery comprising a first step of obtaining particles represented by the formula $MmNi_{3.4}Co_{0.8}Al_{0.2}Mn_{0.6}$ (col. 4, line 23). In this formula, M is specifically disclosed as Al, with the subscript “x” present at 3.4 satisfying the claimed $3.0 \leq x \leq 5.2$; the subscript “y” present at 0.8 satisfying the claimed $0 \leq y \leq 1.2$; and the subscript “z” present at 0.6 satisfying the claimed $0.1 \leq z \leq 0.9$; therefore, the sum of x, y and z at 4.8 satisfies the claimed $4.4 \leq x + y + z \leq 5.4$.

As to “ the hydrogen absorbing alloy having a sintered surface region and a bulk region covered with the surface region” and subsequent limitations as recited in claim 2, lines 19-25, the Examiner asserts that these limitations have not been given patentable weight because the product limitations fail to further limit and give breadth and scope to the method claim.

The Examiner further notes that while Ise does not explicitly teach a third step of sintering, Ise teaches a heat-treatment step of the acid-treated alloy in a hydrogen atmosphere.

(col. 4 line 40-43). The Examiner asserts that “sintering” is a subset of “heat-treating” to the extent that sintering is a heat-treatment step below the melting point of the material being treated.

Applicants herein amend the claims to add a limitation to the second step of the claimed process. Specifically, the second step of the process now recites, “a second step of treating said particles of the hydrogen absorbing alloy in an acid solution to which at least one of nickel compound and cobalt compound is added.” Applicants submit that this limitation is neither taught nor suggested by either of the cited references.

Applicants note that the effect of treating the particles of the hydrogen absorbing alloy in an acid solution to which at least one of nickel compound and cobalt compound is added is shown in page 21, Table 1 and so on of the specification of the present invention. Specifically, when the hydrogen absorbing alloy treated in the acid solution to which the compounds are added is used, an initial discharge capacity and high-rate discharge characteristics are improved compared with the case where the hydrogen absorbing alloy treated in the acid solution to which the compounds are not added is used. Especially, the initial discharge capacity and the high-rate discharge characteristics are further improved when the amount of the compound to be added is in the range of 0.3 to 5.0 % by weight of the particles of the hydrogen absorbing alloy, as shown in claim 4.

Claim Rejections under 35 U.S.C. §103(a)

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ise. The Examiner asserts that, absent a showing of unexpected results by Applicant, the amount of nickel or cobalt in solution is an optimizable parameter for a result-effective variable, because it directly affects the degree of coating of the respective metals on the alloy surface.

Response under 37 C.F.R. §1.111

Attorney Docket No. 001431

Serial No. 09/701,512

With respect to rejections under 35 U.S.C. §103(a), Applicants note that U.S. Patent No. 5,943,545 to Ise is commonly assigned with the present application. Ise was filed on November 26, 1997 and issued on August 24, 1999. The present application was filed on November 30, 2000, but claims priority to JP 171527/1998 filed on June 18, 1998. Therefore, Applicants submit that Ise would properly be a reference only under 35 U.S.C. §102(e). According to 35 U.S.C. §103(c), “Subject matter ... which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability ... where the subject matter and the claimed invention were, at the time the invention was made, ... subject to an obligation of assignment to the same person.”

Because the present application and the cited reference are assigned to the same entity, Sanyo Electric Co, Applicants submit that 35 U.S.C. §103(c) indicates that Ise would be removed as a reference in the above rejection under 35 U.S.C. §103(a).

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Response under 37 C.F.R. §1.111

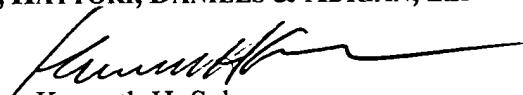
Attorney Docket No. 001431

Serial No. 09/701,512

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Kenneth H. Salen
Attorney for Applicants
Registration No. 43,077

KHS/led
1250 Connecticut Avenue, NW
Suite 700
Washington, D.C. 20036
(202) 822-1100

Q:\2000\001431\001431 SHELL AMENDMENT 11-24-2003.doc